

Appl. No. 10/789894
Reply to Action dated 11/7/2007
Page 5

RECEIVED
CENTRAL FAX CENTER

FEB 07 2008

REMARKS

Claims 10-14 have been amended. Claims 10-14 remain pending.

Reconsideration and reexamination of the application, as amended, are requested.

The Examiner rejected claims 10-14 under 35 USC 112, second paragraph, as being indefinite. The Examiner indicated that the claims do not recite structure to support the operation of the motor as recited in claims 10 and 13.

Applicant has considered the Examiner's comments and claims 10 and 13 have been amended. It is submitted that the claims are no longer indefinite and that the rejection should be withdrawn.

The Examiner rejected claims 10 and 12 under 35 USC 103(a) as being obvious on consideration of admitted prior art in view of Fohl.

With respect to the admitted prior art, Applicant states at page 2, lines 5-15 the following:

In a case where the motor-assisted pretensioner is combined with the emergency locking retractor, when the collision of the vehicle is avoided after the motor-assisted pretensioner has increased the tension of the webbing to restrain an occupant based on the foreknowing of the collision of the vehicle, it is necessary to loosen the tension of the webbing again to cancel the restraint of the occupant. In this case, the occupant is in a restrained state and hence, the engagement of the ratchet tooth and the ratchet claw with each other is maintained, whereby the emergency locking retractor remains in a locking state and hence, the webbing cannot be drawn out by the motor-assisted pretensioner.

Applicant follows this discussion with a discussion of the problems with the prior art at page 2, lines 15-25, as follows:

To avoid this situation, a sensor for detecting the inclination of the weight of the emergency locking retractor is mounted, and after it detects that the inclination has been eliminated to provide a state in which the locking state of the retractor of the emergency locking

Appl. No. 10/789894
Reply to Action dated 11/7/2007
Page 6

retractor can be released, an actuator is required to forcibly release the engagement of the ratchet tooth and the ratchet claw.

However, such an arrangement suffers from a problem of an increase in the number of parts, because of the needs for the sensor for detecting the inclination of the weight and the actuator for releasing the engagement of the ratchet tooth and the ratchet claw.

Fohl discloses a winding-up device with automatic lock. The device is totally mechanical. With respect to the admitted prior art, as discussed above, it was stated that the emergency locking retractor remained in a locking state and hence, the webbing could not be drawn out of the motor-assisted pretensioner. To avoid this situation, a sensor for detecting the inclination of the weight of the emergency locking retractor is mounted and an actuator is required to forcibly release the engagement of the ratchet tooth and ratchet claw. With respect to this type of situation, Fohl has a mechanical solution as shown in figure 4 and discussed at column 10, lines 1-12, as follows:

When relieving the belt and during the subsequent winding-up operation, a slight rotary movement of the winding-up shaft 2 will suffice to cause the spring-loaded pawl 10 by means of the tooth back 46 in front of pawl 10 (when looking in the belt withdrawal direction) to tilt outwardly to the periphery of the ratchet disc 8. In view of the frictional engagement with the preloaded hub portion 20, the control lever 19 follows in the winding-up direction. In this connection, its ascending cam portion 42 engages the control roller 12 of the pawl 10 so that the latter is pressed further outwardly to the starting position shown in Fig. 4.

Claims 10 and 13 both require an electronic control unit and a device including an adaptive cruise control system separate from the weight and adapted to predict the collision of the vehicle and send a signal to the electronic control unit indicating a possibility of the collision of the vehicle so that with the signal from the device, the electric motor is commanded by the electronic control unit to

Appl. No. 10/789894
Reply to Action dated 11/7/2007
Page 7

be driven for rotation in the normal direction to take up the webbing of the seat belt. More relevant to solving the problems of the prior art, the device of claims 10 and 13 having the adaptive cruise control system further requires that when the signal from the device indicating the possibility of the collision of the vehicle has disappeared, the electric motor is operated to drive and rotate the reel in the normal direction and to rotate the reel in an amount corresponding to at least one crest of the ratchet teeth to cancel the locking. That is, the weight functions so as to not prevent the electric motor. In that regard, when the signal from the device indicating the possibility of the collision of the vehicle has disappeared, the electric motor is operated to drive and rotate the reel in a way to cancel the locking. Fohl functions by a short pull on the webbing to release the pawl from the tooth so that the control lever 19 can function. The device of claims 10 and 13 does not function by the person making a pull on the webbing. Rather, there is an electronic control unit and there is a device separate from the weight which sends a signal to the electronic control unit to command the motor appropriately. Clearly the admitted prior does not disclose these elements. Furthermore, Fohl functions according to a different concept with mechanical type elements. Fohl does not disclose or point to the elements required by claims 10 and 13 or to the concept of operation which the elements in claims 10 and 13 require. Thus, claims 10 and 13 and the claims which depend from them do not follow from and are non-obvious over the admitted prior art in view of Fohl.

The Examiner rejected claims 11, 13, and 14 under 35 USC 103(a) as being obvious on consideration of the admitted prior art in view of Fohl as applied to claim 10 and further in view of Dybro et al.

Dybro is directed to a secondary locking mechanism which functions after a primary locking mechanism has already placed the lock pawl in engagement with the lock reel. Dybro makes no relevant disclosure which changes the arguments discussed above. Hence, for the reasons given above, claims 11, 13, and 14 are also patentable.

Appl. No. 10/789894
Reply to Action dated 11/7/2007
Page 8

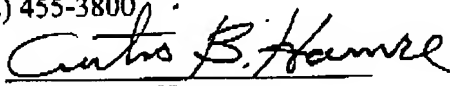
In view of the above, it is submitted that the application is in condition for allowance. Reconsideration and reexamination are requested. Allowance of claims 10-14 at an early date is solicited. Any questions regarding this communication can be directed to the undersigned attorney, Curtis B. Hamre, Reg. No. 29,165 at (612) 455-3802.



Dated: February 7, 2008

Respectfully submitted,

HAMRE, SCHUMANN, MUELLER &
LARSON, P.C.
P.O. Box 2902
Minneapolis, MN 55402-0902
(612) 455-3800

By: 
Curtis B. Hamre
Reg. No. 29,165
CBH/tk